

The RARS EXCITER



Issue 244 - July, 1990 - Club Repeaters: 146.04/64 , 223.04/224.64 , & 444.5/449.5

VHF/UHF Contest Turns into RARS Pig-Pick'n

While some came to contest, others came to eat. This was the first year that RARS participated in the VHF/UHF contest -- as far as the contest, we learned a lot, & we had alot of fun doing it. The 6 meter station was up and operational early Saturday afternoon, but hardware difficulties (nuts & bolts hardware!) kept the 2 meter and 432 MHz antennas down till almost dusk. However, even with a "slow start" on those stations, the club had a very respectable showing for its's first time out. (See the VHF SIG report for score details).

Some high-lights: the younger members of RARS (Patrick, KB4VYP & Steven, KC4JJZ & Michael Thompson (KC4OCB's son)) rolling up their sleeves and doing the work! These fellows had the tower up, antennas installed, and were making & logging calls before some of the adults knew what was going on! WD4MYM's van (with literally floor to roof radios) was a sight to behold. Ditto for KB4OKB's camper. When not logging calls on 2, Dave was observed laying down, watching TV. Now there's a man who knows how to "rough it!"

The decision was made by the VHF/UHF SIG to hold their summer cook-out in conjunction with this contest. Ronnie, WA4MJF, & Mark, KC4OCB did a superb job of organizing and preparing meals for the troops (lunch & dinner Saturday, & breakfast & lunch Sunday). The high-light of of this effort was a pig-pick'n Saturday evening. Several RARS YLs & XYLs also brought covered dishes, resulting in some extraor-



Pig-Pick'n Chefs: Ronny Reams , WA4MJF (left) & Mark Thompson, KC4OCB.

dinary eating enjoyment.

Seen there were: K4SAN, wife Sandy & son; WA4LHE, KC4JJZ, KB4VYP, WA4MJF, KB4EXL. KC4OCB, his wife Wanda & sons Michael, David, & Scott. N4BYO, AA4MY, AB4LR & XYL Elizabeth. N4IQA, NA4G, N4XPE, N4PNO, WA4PEN & XYL Nola. KC4GFR, WD4MYM, KB4OKB, NO0T, AB4OZ, & XYL KC4NJB, K4HF & XYL, N4VQN & XYL. Rounding out the list was VP KC4AQB & hubby WA4JWE. (Those were the folks who I saw ... but I admit, I wasn't there for the whole thing, so I may have missed some other RARS-ites. Sorry!) A great time was had by all. I hope the VHF Contest / Pig Pick'n becomes another annual event & RARS tradition. If you missed it, you missed a great one!

The Raleigh Amateur Radio Society, Inc. (RARS), founded in 1969, has grown to be one of the premier radio clubs in North Carolina. Current membership exceeds 370.

The objectives of the club are to promote world wide friendship through Amateur Radio; to be of public service by providing radio communication in times of disaster, emergency, or civic need; to educate members in radio technique, and to assist in obtaining Amateur Radio licenses.

All persons interested in Amateur Radio, currently licensed or not, are eligible to apply for membership to the club.

Dues to the club are \$10.00 per year (which runs from July 1 to June 30). Applications for membership may be obtained from any of the officers named below; from the newsletter editor, named on the facing column; or at any RARS Meeting.

Club meetings are held the first Wednesday of every month, 7:30 PM, at the Raleigh YMCA, 1601 Hillsborough St.

In addition to the many social and special events, the club sponsors a 2 m repeater, W4DW, on 146.04/64 MHz, and WA4PEN on 223.04 / 224.64 MHz, & 444.5 / 449.5. All repeaters cover Raleigh, and most of the surrounding Wake County area. Auto-patch privileges are available on W4DW to duly licensed RARS members. Future plans call for additional repeaters on the 50 MHz amateur bands

1990 Officers:

President:	Jim DuBreck, N4BYO 1209 Shelly Road Raleigh, NC 27609 781-9437
Vice President:	Anita Kellum, KC4AQB 208 Chatterson Drive Raleigh, NC 27615 846-7455
Secretary:	Ronny Reams, WA4MJF 3509 Rolesville Road Wendell, NC 27591 266-4434
Treasurer:	Tim Buehlmann, N4IQA 1314 Chaney Rd. Raleigh, NC 27606 851-7738

The EXCITER is published monthly by the Raleigh Amateur Radio Society, and is mailed at no cost to its members.

Letters to the Editor, technical articles, items of interest to the ham community and guest editorials are actively solicited.

Any article published in the EXCITER does not necessarily represent the views of, the Officers, Board of Directors, Editor, or Society Membership, nor does publication thereof represent concurrence by the Officers, Board of Directors, Editor, or Society membership with the contents of the article.

Articles will be printed at the discretion of the Editor, and no article will be published unless it is accompanied by the name(s) of the person(s) submitting the article.

All copy must be in the hands of the editor by the end of the Board of Director's meeting on the third Wednesday of each month. Articles submitted for publication may be hand or type written, an ASCII file on disk (IBM or APPLE format), transmitted electronically via telephone modem, or on the ham bands using RTTY or PACKET.

Ham related items for sale by the members will be advertised without charge for one issue, but may be re-submitted as often as desired. These ads must be non-commercial in nature.

Commercial ads will be run in return for the following donations to the club:

	Single Issue	Full Year
Business Card	\$5.00	\$25.00
Quarter Page	\$10.00	\$50.00
Half Page	\$20.00	\$100.00
Full Page	\$30.00	\$150.00

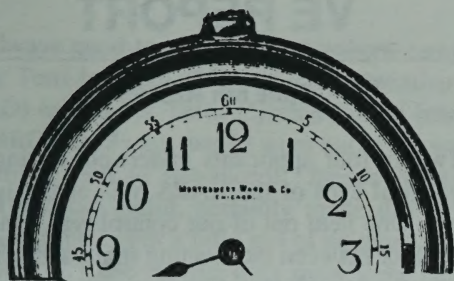
(Commercial ads must be of "camera-ready quality," and obviously can not be sent via ham bands.) Due to the reprographic process used, no color copy can be accepted.

Advertisers are guaranteed a minimum monthly mailing of 400 copies.

Editor:	Vince Yakamavich, AA4MY 220 Carriage Trail Raleigh, NC 27614 847-8512 (Home) 850-5390 (Office)
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Amateur Radio News Service **AMSAT**



Minutes of the Meeting

The regular monthly meeting of the Raleigh Amateur Radio Society was held 06 JUN 90 at the YMCA on Hillsborough Street. President Jim DuBreck called the meeting to order and welcomed the 90 members and 21 guests.

The election for the 1991 Field Day Chairman was held. Bob Keys NA4G will again serve in this capacity.

The budget for FY 1991 was presented by the Treasurer, N4IQA, and was approved by the membership.

A fine presentation on severe weather was given by Tim Drum, a meteorologist / Senior Scientist from CP&L.

K4SAN announced that the VHF-UHF SIG would participate in the ARRL VHF-UHF QSO Party. This will be the first time that RARS has participated in this event.

NA4G spoke about the upcoming 1990 Field Day to be held at Camp Butner.

WA1WXL said that his SIG was in the process of working on some upgrades for the two meter repeater.

The July meeting **will** be held on the fourth of July.

Three door prizes were given. A World Radio subscription was won by NA4G. The 1990 Domestic Callbook was won by N4LBA. The other World Radio subscription was won by WD4MZZ.

The meeting adjourned, and an informal social period followed.

*Ronald G. Reams, WA4MJF
RARS Secretary*

'90 - '91 Dues R Due!

Treasurer Tim says it's time to feed the coffers again!! In addition to this publication, your membership fee helps defray the costs of such goodies as: the meetings (including drinks & doughnuts), the repeaters, auto-patch, Field Day, Picnic, Xmas Party, & Awards Banquet, and others, all of which **YOU** can enjoy.

If this issue of the EXCITER contains an envelope in the center fold, **YOUR** dues are due!! Please fill out the brief renewal form (page 19), and mail it along with your check (\$10 individual, \$15 family, \$7 additional for speed dial (see page 19!) in the envelope provided. (If your issue does NOT contain an envelope, either your dues are paid, or you are receiving a complementary issue.) If you feel there is an error in your dues status, please get up with N4IQA @ 851-7738, please: **before 9:00 PM, & NOT on Sunday!**

RARS has had another outstanding year, and we're planning **EVEN BIGGER** and **BETTER** activities next year. We hope **YOU** will want to continue to be a part of **THE PREMIER RADIO CLUB IN NORTH CAROLINA!!**

Editor to Goof Off in July

Time fer vacation!! Walter Price, KM4BU, has agreed to fill in, and put together the August EXCITER.

If you have any information you wish to be included in that issue, get it to KM4BU **prior to the 18th of July**. Assuming all goes well, AA4MY will be back at the keyboard for the September issue! **Many thanks to Walter for volunteering!**

RARS Welcomes 7

A hearty RARS welcome to:

Ray Hart, KF4OT, Bill Patterson, KN4IX, Roger Quillin, KB4FEU; Joel Reames (no call, yet!), Douglas Sweet (also no call), Richard Woodbury, N4LMR; and Dave Zimmerman, KC2WR

VHF/UHF SIG REPORT

The regular monthly meeting of the RARS VHF-UHF SIG was held 14 JUN 90. In attendance were: N4SSU, N4UOQ, K4SAN, WA4LHE, KB4EXL, WA4PEN, WA4MJF, KB4VYP, KC4NJB, AB4OZ, and KN4AQ.

WA4PEN reported that the two meter repeater has some problems with out of band emissions. Some of these are as high as 224 MHz. With WA1WXL leaving the area there's a need for someone to fix/service it.

There was extensive discussion on RARS budget matters.

WA4MJF and KB4EXL reported on the pig picking at the VHF QSO party at Camp Butner last weekend. The consensus was that a good meal was enjoyed by all.

WA4PEN reported that AB4OZ, WA4LHE, N4IQA, and K4SAN got the three (3) generators running. One was used at the QSO party and worked fine business.

The 1 1/4 meter repeater is status quo. WA4PEN working on an audio board for the GE EXEC receiver. There was a discussion on ways to increase interest in 1 1/4 meter FM. N4SSU and N4UOQ were appointed to look into this and report back at a future meeting.

The 70 cm repeater works great thanks to AB4OZ and others who helped put up the new antenna. The receiver could stand some tweaking. The usage is good. KB4LAF is working on the controller.

The WA1WXL repeater on 70 cm located at the Bay Leaf site will be acquired for RARS VHF-UHF SIG by N4SSU, N4UOQ, AB4OZ, and KC4NJB.

The results of W4DW's participation were announced by K4SAN. W4DW had a total of 5,700 points and there were 44 grids worked on 6, 14 grids on 2, and 2 grids worked on 70cm.

K4SAN gave the second of his training sessions in repeater theory and operation.

The social was held and there was a new to the SIG goodie, apple cobbler, which was in fact quite excellent.

The next meeting will be on 12 JUL 90.

Sherry L. Reams, KB4EXL

VE REPORT

June 6th Results

Twenty four applicants underwent testing under the watchful eyes of the RARS VEs at the June 6th session. One item out of our control was a malfunctioning door between the meeting room and where the code tests were given. Copying code through the QRM coming from the meeting was the ultimate test! Difficult - yes; impossible no! The stats: 24 applicants, 50 elements administered, 75% upgraded, 58% pass by element. Highest pass rate: Tech @ 87.5%. Lowest: 13 WPM code @ 16%.

We would like to congratulate the following:

Glen Clary, WA4LHE, now EXTRA
Edward Griest, KM4ZF, now EXTRA
Philip L. Martin, N4WKK, now EXTRA
Leo W. Poitras, N4ONR, now EXTRA
George Wilson, N4XJL, now Advanced
Ernest Schnitz, N4UOC, now Advanced
Cynthia Stroud, N4WUH, now Advanced
Jesse Mansfield, W4IOA, now Advanced
Robert Rose, N4SKZ, now Advanced
Lisa Robinson, N4ZCD, now General
Roger Quillin, KB4FEU, now Tech
Joseph Watkins, KC4QNN, now Tech
Arthur Colborn, KB4QJL, now Tech
Sidney Johnson, KC4QOJ, now Tech
Terri J. Kaskolka, now Tech
Jiro Sakanaka, now Tech
Bromley Jennette, now Tech
William G. Moore, now Novice

Congrats are also in order for: **Judith Mansfield, N4ZAY**, for General written; **Pete Memolo, N4UOE**, for the Advanced written; and to **Matt Reynolds, KB2ACE**, for 20 WPM code.

Some notable highlights:

Attendees drove in from Wilson, Wendell, Rocky Mount, Vass, Clinton, Littleton, Aberdeen, Tarboro, Chapel Hill and Havelock. Quite a drive -- but most said "... well worth it!"

Amateur Radio Personality Test

Always good to see family members earning licenses: Terri Jaskolka, (XYL of RARS member John, N4YRD) earned her Tech; Cynthia Stroud (daughter of AB4RQ) finally got that 13 wpm out of the way and went from Tech to Advanced! Janette Martin, although not successful, certainly made dad (Phillip, N4WKK) proud. For a little girl of no more than 7 or 8 to even TRY the Novice tests show's she has "the right stuff!" (And she wasn't very far off, either...)

And speaking of the "right stuff," Ernie Schnitz, N4UOC, has taken the lead of the "RARS N4UO_Class," by being the first to upgrade to Advanced (he was tied with N4UOD at General.) Way to go Ernie! Ernie's 72 years old, and is an inspiration to us all! Now how 'bout them "youngsters" UOD, UOE, UOF, an' UOQ?? Ed Griest, KM4ZF, at an even 70, showed he still has the right stuff too, by passing both code & written for his EXTRA.

Lets keep an eye on Jiro Sakanaka, a Japanese gent who sat down with no license, and passed writtens for Novice, Tech, General & Advanced missing only one question per test! He also skated by 5 wpm, and just missed 13 wpm by only 2 characters!! (So that the rest of us don't feel too bad, I understand Jiro is an electrical engineer working out at IBM -- and he holds a Japanese Commercial radio license too!). Now there's an example of what to do!

All in all -- quite a session. RARS VEs working were Chet, KB4LAF; Alan, AB4OZ; Jim, AB4TD; Bill, N1BA; & Bert, W4FMN; on code. Marty, NY4H, & Joe, WA4GIR; on writtens. John, KK4JB; Ken, AB4RQ; & Vince, AA4MY; sign in / sign out. Our thanks to those VEs who worked the session, and volunteered their time & efforts so that others might enjoy more.

And for our newly licensed EXTRAs, The RARS VEs are always "looking for a few good men!!" -- see AA4MY for more info.

Next Area Exams:

Sat. July 14, Durham, Call Pete, KY4Y @ 544-3215 for info.

Wed. August 1, RARS Meeting.

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Congrats to Mike Paine, KM4UT/AE, who up-graded in Durham in May.

Directions: Circle the letters of the sentences below that most closely resemble your attitudes about amateur radio. Then read the descriptions of those same letters to determine your personality profile.

- A. Twenty meters is the band with all the action. It's propagation, overall characteristics, and the skill of it's regular operators epitomize the entire concept of Amateur Radio.
- B. Twenty meters is full of California flakes and East Coast kilowatts. Amateur Radio is a fraternity, and that fraternity only exists on 40 and 75 meter SSB.
- C. Traffic handling is a living example of the history and traditions of Amateur Radio, and traffic handlers exude skills and decorum not found in the amateur community as a whole, and in general, are superior operators in all regards.
- D. The high excitement and fever pitch of contest activities sharpen the endurance and stamina needed in emergency operation. Contesting is where it's at.
- E. Amateur Radio has few unexplored areas, few real operating frontiers. UHF is one of the last of these outposts of research and exploration.
- F. Amateurs have a duty to serve their community in emergency situations. Consequently, each amateur should be prepared that he/she may be called upon to render service above and beyond the call of duty.
- G. Personally, I find the traditional modes of amateur communication quite boring. Amateur Radio's only future is in the growing number of specialty modes and new developments in amateur communication.
- H. As a young person involved in Amateur Radio, I find that I am often confronted with cultural gaps in my hobby.
- I. Too many hams these days are technically inclined to the point that they aren't good conversationalists. I find the friendships that I've gained via Amateur Radio the most rewarding part of my hobby.
- J. Just as women in today's world are breaking into traditionally closed areas, today's YL is also becoming more involved in amateur activity. As one of this new breed of YL, I find the men and women of Amateur Radio exciting and challenging.

see Personality Test Answers , page 17

1990 RARS Officers:

			Home	Office
President	Jim DuBreck	N4BYO	781-9437	481-8509
Vice-President	Anita Kellum	KC4AQB	846-7455	828-0531
Secretary	Ronnie Reams	WA4MJF	266-4434	733-4430
Treasurer	Tim Buehlmann	N4IQA	851-7738	851-7738
ARRL Liason	Chuck Littlewood	K4HF	872-6555	992-5851
Past President	Pete Thacher	N4HQZ	876-4073	833-1230

COMMITTEE / ACTIVITY CONTACT PERSONS

Newsletter Editor	Vince Yakamavich	AA4MY	847-8512	850-5390
Publicity	Chris Shackelford	KN4DT	528-3444	881-8222
FM Committee	Jeff Parker	WA1WXL	848-1208	
Training	Bob Rinn	N4VQN	847-6185	
W4DW Trustee	Lynn Pendleton	K4NYV	829-9449	546-6228
Examiner Program	Vince Yakamavich	AA4MY	847-8512	850-5390
'91 Hamfest	(currently open)			
Special Events	Walter VanGieson	AB4DQ	782-1424	782-1424
2 Meter Net	James Babcock	K4ABJ	787-7816	787-7816
10 Meter Net	Paul Sims	WB4YBF	772-8097	546-6736
Public Service	Edward Breeden	N4SSU	787-8874	782-4333
Memb. Assistance	Rollin Ransom	NF4P	269-4406	269-4406
Special Activities	Norm Plaks	KN4G	876-4192	
'91 Field Day	Bob Keys	NA4G	847-0069	
SIG Co-Ordinator	Ed Alderman	WA4PEN	876-0340	876-0340
Homebrew SIG	James Martin	KA5IEC	781-6592	781-6592
VHF / UHF SIG	Ronny Reams	WA4MJF	266-4434	733-4430

RARS Roster: July 1, 1990

382 Members -- Sort by Amateur Call Suffix

Prefix Suffix	Class					
-	-	-	Edward M. Alderman Jr.	-	96 Hooper	Dedham, MA 02026
-	-	-	Eddie Clark	-	SR 1902	Apex, NC 27502
-	-	-	Charles Everett	772-6316	15 Brad Ct.	Apex, NC 27502
-	-	-	Ann Foltz	781-2566	PO Box 31531	Raleigh, NC 27622
-	-	-	John J. Foltz	781-2566	PO Box 31531	Raleigh, NC 27622
-	-	-	Vijay Kapil	848-1536	8604 Brookdale Drive	Raleigh, NC 27613
-	-	-	Russell O. Lyday Jr.	787-4137	4739 Rembert Dr	Raleigh, NC 27612
-	-	-	Doris Plaks	876-4192	1205 Country Ridge Rd.	Raleigh, NC 27609
-	-	-	Joel Reames	266-7133	3712 Tarheel Club Road	Raleigh, NC 27604
-	-	-	Douglas Sweet	481-1102	922 Northwoods Drive	Cary, NC 27513
-	-	-	Kevin J. Tremblay	553-3549	2009 Spring Valley Dr.	Clayton, NC 27520
-	-	-	Elizabeth Williams	834-2710	4008 Live Oak Rd.	Raleigh, NC 27604
KC4	???	N	William G. Moore	787-1258	6000 Silkwood Way	Raleigh, NC 27612
N4	???	T	James Craig Journey	552-2873	203 Lake Street	Fuquay Varina, NC 27526
N4	???	T	Joseph McNellis	-	c/o Box 6	Raleigh, NC 27606
N4	???	T	Alice H. Rozenbrock	929-0515	126 Essex Drive	Chapel Hill, NC 27514
K4	ABJ	A	James Babcock	787-7816	611 Vick Ave.	Raleigh, NC 27612
K8	AC	E	Floyd Sense	851-7546	6513 Deerview Dr.	Raleigh, NC 27606
W2	AC	E	Harry Greenberg	553-4309	2401 Covered Bridge Rd	Clayton, NC 27520
KB2	ACE	G	Matt Reynolds	848-3894	705 Radburn Pl.	Raleigh, NC 27612
WA4	AFB	G	Alan Browne	-	2401 Guilford	Baltimore, MD 21218
N4	AFO	A	Benny Caudill	787-5936	508 Emerson Dr	Raleigh, NC 27609
WD2	AJJ	A	Anthony Palestino	846-4056	6402 L The Lakes Drive	Raleigh, NC 27609
KN4	AK	A	N. Lee Lewis	870-1179	7005-D Woodbend Dr.	Raleigh, NC 27615
K1	ANX	A	George H. Rancourt	527-4304	82 White Loaf Rd.	Southampton, MA 1073?
KA9	AOG	T	Steve Bowers	859-6975	6301A Linville Drive	Raleigh, NC 27606
WA4	AOO	E	Jim Bradley	779-8840	8112 Deer Meadow Dr.	Apex, NC 27502
WA4	APK	E	Ann Bradley	779-8840	8112 Deer Meadow Dr.	Apex, NC 27502
KN4	AQ	A	Gary Pearce	233-8306	4400 Bleeker Ct.	Raleigh, NC 27606
KC4	AQB	T	Anita Kellum	846-7455	208 Chatterson Dr.	Raleigh, NC 27615
KC4	AQC	T	Renard Della Fave	787-8396	6021 Wintergreen Dr.	Raleigh, NC 27609
KB4	AQH	G	Annette Rogers	787-7486	5312 Kirkwood Ct.	Raleigh, NC 27609
K3	AYS	E	James E. Fisher	847-6033	11908 Coachmans Way	Raleigh, NC 27614
N1	BA	E	Bill Ransier	846-2692	8200 Hambledon Ct	Raleigh, NC 27615
WB4	BAH	T	Tim Kemp	552-6015	P.O. Box 775	Fuquay Varina, NC 27526
W2	BBN	G	William Brandberg	833-9640	714 Glascock St	Raleigh, NC 27604
WD4	BDO	A	H.E. "Butch" Starkey	362-0628	Route 5 Box 302	Apex, NC 27502
KB7	BLC	N	Dorothy C. Harris	-	(requested un-listed)	- -
KI4	BP	E	Wally Brame	828-5088	912 N. Blount St	Raleigh, NC 27604
KC4	BRQ	T	T.K. Kempson	-	Route 6 -- Box 414	Henderson, NC 27536
KN4	BS	A	Michael Gingell	847-4779	113 Trotters Ridge Rd	Raleigh, NC 27614
KM4	BU	A	Walter Price	481-3856	420 Oak Ridge	Cary, NC 27511

K4	BWC	E	Billy Edwards	832-5151	4209 Live Oak Rd.	Raleigh, NC	27604
N4	BYO	G	Jim DuBreck	781-9437	1209 Shelly Rd.	Raleigh, NC	27609
WB4	CCA	A	Bill Radford	872-2000	3844 Marsh Creek Rd.	Raleigh, NC	27604
N9	CGD	T	Thomas Doligalski	-	132 Castlewood Drive	Cary, NC	27511
AB4	CH	E	Michael Roebuck	772-9051	2216 Regina Dr	Raleigh, NC	27603
K4	CIA	E	William McDowell	876-2686	3709 Huntleigh Dr.	Raleigh, NC	27604
N3	CL	E	Bill Erreich	847-2761	7208 Stonecliff Dr.	Raleigh, NC	27614
WA0	CMO	A	Chuck Jurgens	787-2020	4708 Wildwood St.	Raleigh, NC	27612
KC4	COY	T	Gary D. Coates	489-8593	2214 Prince St.	Durham, NC	27707
KC4	CPC	N	Marlene Thomas	782-1609	5228 Cedarwood Dr.	Raleigh, NC	27609
KC4	CPD	T	Robert G. Wolk	848-4812	6001 Clare Ct.	Raleigh, NC	27609
KC4	CPH	T	Joseph T. Hayes III	556-4208	110 Fairburn Ct.	Wake Forest, NC	27587
K4	CQG	E	James K. Baucom	834-6682	520 Mills Street	Raleigh, NC	27608
KC4	CRT	T	Charles A. McDaniel	787-5130	6400 Gainsborough Dr.	Raleigh, NC	27612
KC4	CU	A	Steven Robertson	781-7619	900 Currituck Dr.	Raleigh, NC	27609
KA3	CVE	T	Dorthea Church	967-6915	27 Fearington Post	Pittsboro, NC	27312
KA1	CYF	T	Ray Bordt	787-7786	5304 Collingswood Dr.	Raleigh, NC	27609
KA1	DBY	T	James D. Bookout	266-7166	401 Satterwhite Dr.	Knightdale, NC	27545
WB4	DCM	A	Charles Swindell	848-0410	6805 Perkins Dr	Raleigh, NC	27612
AA6	DD	E	Wil Anderson	-	19972 Markham	Perris, CA	92370
W4	DHW	A	Lawerence Whitehurst	-	175 Brooke Drive	Venetia, PA	15367
KA8	DPN	A	Francis J. Reck	552-7066	301 Mill Creek Drive	Fuquay Varina, NC	27526
AB4	DQ	E	Walter Van Gieson	782-1424	201 Walden Place	Raleigh, NC	27609
WB4	DRJ	A	Lee Rogers	787-7486	5312 Kirkwood Ct	Raleigh, NC	27609
K4	DRT	G	Michael Stroupe	787-6729	4716 Stonehill Street	Raleigh, NC	27609
KN4	DT	A	Chris Shackelford	781-7033	Rt. 2, Box 294-HH	Creedmoor, NC	27522
W8	DTD	A	Peter Bliss	847-8704	8701 Kings Mill Pl	Raleigh, NC	27614
KC4	DWR	T	Stephen F. Scarrow	848-2445	7601 Falls Of Neuse Rd	Raleigh, NC	27615
KA2	EAP	N	Barry A. Kesner	781-4062	2100 Paces Forest Ct.332	Raleigh, NC	27612
N4	ECU	G	Fred Brack	847-7268	500 Emerywood Dr	Raleigh, NC	27615
KK4	EF	A	Kerry Snyder	859-9587	5105 Fort Sumter Rd	Raleigh, NC	27606
AB4	EL	E	Stephen A. Modena	737-2511	2729 Oberlin Rd.	Raleigh, NC	27608
WA4	ENZ	A	Joseph Homovec	787-2150	4135 Rockingham St.	Raleigh, NC	27609
KC4	EOG	G	Chris Lassiter	737-6028	PO Box 3780/316 Becton	NCSU, NC	27607
WB4	EOV	G	William Feehan	781-6575	4412 Yadkin Dr.	Raleigh, NC	27609
KM4	EP	A	Jay Diepenbrock	781-2682	4121 Stagwood Dr.	Raleigh, NC	27612
W3	EPA	A	Harry Church	967-6915	27 Fearington Post	Pittsboro, NC	27312
KB4	EXL	T	Sherry L. Reams	266-4434	3509 Rolesville Rd.	Wendell, NC	27591
KC4	EYK	T	Carolyn C. Mayfield	365-6291	PO Box 1273	Wendell, NC	27591
W3	EZR	E	Roger Moates	876-0691	3300 Barnesley Ln	Raleigh, NC	27604
WB4	EZR	G	Phil Billings	772-6502	911 Flanders St.	Garner, NC	27529
W2	EZS	G	Paul Reynolds	848-3894	705 Radburn Pl	Raleigh, NC	27612
KX4	F	E	David Biggers	847-6922	2016 Petworth Ct.	Raleigh, NC	27615
WK2	F	E	Andrew Singer	-	74 Scott Drive	WappingerFallsNY	12590
WA2	FAC	G	Tom Linville	481-1718	1014 Queensferry Rd.	Cary, NC	27511
K4	FAD	E	John Mentha	846-0473	5124 Swisswood Dr	Raleigh, NC	27612
KC4	FCC	T	Thomas Jeffries	-	P.O. BOX 69	Henrietta, NC	28076

K4	FEP	A	Melvin L. Harrod	787-3004	3804 Pleasant Valley Rd.	Raleigh, NC	27612
KB4	FEU	T	Roger Quillen	790-9191	5612-E Falls of Neuse Rd	Raleigh, NC	27609
WB4	FHI	A	Bob Glenn	477-2309	3401 Duke Homestead	Durham, NC	27704
WA3	FHM	G	William F. Medlock	783-5683	2429 F Wesvill Ct.	Raleigh, NC	27607
K3	FKI	T	Jerry Silverstein	787-4353	4822 North Hills Dr.	Raleigh, NC	27612
KN4	FL	A	John Swain Jr.	787-5417	3420 Churchill Rd.	Raleigh, NC	27607
W4	FMN	E	Bert Bailey	787-1643	701 Currituck Rd	Raleigh, NC	27609
K4	FMW	G	Robert Browning	851-5567	3910 Wendy Ln.	Raleigh, NC	27606
W4	FNB	A	William Hales	782-2522	3209 Dell Dr.	Raleigh, NC	27609
N0	FSD	E	Bill Schmidt	878-9587	1100 Mayberry Place	Raleigh, NC	27609
W4	FSO	G	Alex L. Regi	787-0161	4216 Windsor Place	Raleigh, NC	27609
W4	FTK	A	Glenn S. Guthrie	851-4861	1308 Chaney Rd.	Raleigh, NC	27606
AA4	FU	E	Alan H. Knight	847-2973	7300 Lake Vista Dr., 104	Raleigh, NC	27613
AB4	FY	E	Robert Ingraham	781-5747	6501 Gateridge Dr. 208	Raleigh, NC	27613
KN4	G	E	Norman Plaks	876-4192	1205 Country Ridge	Raleigh, NC	27609
NA4	G	E	Robert D. Keys	847-0069	7604 Mineshaft Road	Raleigh, NC	27615
N5	GCZ	T	Paul Forehand	779-0559	7504 Trudy Ln.	Garner, NC	27529
KC4	GFR	T	Randy Stegall	833-4737	1319 Curfman St.	Raleigh, NC	27603
K4	GHJ	G	Donn Dieter	782-5776	4809 Radcliff Rd	Raleigh, NC	27609
W2	GHK	E	Stuart Meyer	-	2417 Newton St	Vienna, VA	22180
WA4	GIR	E	Joe White	481-2874	102 B Anderson Ct.	Cary, NC	27511
KC4	GNM	N	Mike Rosenberg	782-4309	4504 Cobler Place	Raleigh, NC	27613
N4	GNN	E	Clay Croom	266-9627	3200 Seattle Ct.	Wake Forest, NC	27587
K4	GOE	A	Al Mullis	850-0640	7001 Rainwater Rd.	Raleigh, NC	27615
N4	GTQ	G	Bill Lindsey	481-4485	212 Popular St.	Cary, NC	27511
N9	GXF	T	Wayne Schulz	266-1560	1012 Laurens Way	Knightdale, NC	27545
KE4	GY	A	Frank H. Moore	929-6163	113 Robin Rd.	Chapel Hill, NC	27516
NY4	H	E	Marty Silver	787-9882	3118 Eton Rd	Raleigh, NC	27608
KC4	HAF	N	Melissa Stafford	471-0766	Rt 2 -- Box 249-2A	Rougemont, NC	27572
K4	HCG	G	Jim Wisdom	782-4098	3308 Cobblestone Ct	Raleigh, NC	27607
K4	HF	E	Chuck Littlewood	872-6555	2005 Quail Ridge Rd.	Raleigh, NC	27609
KN4	HF	A	"Rick" Sumrall	-	7023 Old Oak Ln.	Charlotte, NC	28227
K4	HJJ	G	Ray Blackwell	787-3050	1302 Dogwood Ln	Raleigh, NC	27607
K4	HJK	G	Father McDermott	-	RFD 1, Box 50-D	Glasgow, VA	24555
N2	HJK	A	Paul Allikas	870-1631	10500 Leafwood Pl	Raleigh, NC	27612
K4	HKQ	G	Robert M. Teague	781-9699	2900 Glen Burnie	Raleigh, NC	27607
W2	HLD	E	Mike Vinocur	676-4205	2401 Henning Drive	Raleigh, NC	27615
N4	HON	E	Frances W. Croom	266-9627	3200 Seattle Ct.	Wake Forest, NC	27587
N4	HQZ	A	Pete Thacher	876-4073	1108 Steinbeck Dr	Raleigh, NC	27609
WD4	HSI	G	C.T. West	834-5420	1611 Craig St.	Raleigh, NC	27608
W7	HVU	A	Jim Craig	544-4956	1300 Queensbury Circle	Durham, NC	27713
W3	HXM	G	Finn Dahlin	878-7959	6000 Johnsdale Rd.	Raleigh, NC	27615
KB4	HYF	T	Terry Raiter	782-1233	3708 Oak Park Rd	Raleigh, NC	27612
KC4	HYI	T	Patricia Coates	489-5514	2214 Prince Street	Durham, NC	27703
N3	HZG	T	JoAnn Cirra	831-1090	407B Watagua, NCSU	Raleigh, NC	27607
W1	HZQ	E	Coleman Thacher	781-1532	417 Myrtlewood Ct.	Raleigh, NC	27609
KA5	IEC	A	James T. Martin	781-6592	4100 Duralcigh Rd.	Raleigh, NC	27612

K2	IMO	G	Howard L. Klino	-	5713 Riverford Dr.	Raleigh, NC	27604
WB4	INM	A	Dianne Courtney	362-7037	6933 Wade Drive	Apex, NC	27502
KC4	ION	N	Joshua Ellis	266-3624	Rt. 2 -- Box 346	Wendell, NC	27591
KC4	IOO	A	Alexander Simmons	934-5661	2101 Michael Lane	Smithfield, NC	27577
KM4	IQ	A	Dave Farley	929-9665	106 Warren Way	Chapel Hill, NC	27516
N4	IQA	A	Tim Buchlmann	851-7738	1314 Chaney Rd.	Raleigh, NC	27606
W2	IRC	G	Willard McCune	781-3190	5401 Oldtowne Rd.	Raleigh, NC	27612
K4	IWX	G	Carl H. Rice	834-5321	1807 Rankin St.	Raleigh, NC	27604
KN4	IX	A	William B. Patterson, Jr.	787-8892	7316 Glendower Rd.	Raleigh, NC	27613
N4	IZE	G	Thomas Swanson	782-0791	5729 Wintergreen Dr	Raleigh, NC	27609
KK4	JB	E	John Thomas	782-1609	5228 Cedarwood Dr.	Raleigh, NC	27609
W4	JG	A	Jesse Hodges	833-0229	310 Pogue St.	Raleigh, NC	27607
KC4	JJZ	G	Steven F. Clary	266-3115	2125 Davistown Rd.	Wendell, NC	27591
KA4	JKA	G	Cecil Pearson	772-8330	Rt. 1 Box 236-1	Apex, NC	27502
N4	JTR	T	Virginia L. Massey	479-6838	3700-M Meriwether Dr.	Durham, NC	27704
W4	JUG	A	Jim Johnson	833-9189	815 Coleman Street	Raleigh, NC	27610
N1	JW	E	Alexander Meleg Jr.	-	224 Oak Street	East Hartford, CT	06118
WA4	JWE	G	Sonny Kellum	846-7455	208 Chatterson Dr.	Raleigh, NC	27615
N4	KDD	G	Roger Brower	821-3991	411 W. Morgan St.	Raleigh, NC	27603
KC4	KHN	T	Doug Britt	772-8799	2208 Aversboro Rd.	Garner, NC	27529
KC4	KIC	T	Sam Johnson	787-0603	Box 31067	Raleigh, NC	27622
K4	KTM	E	Richard Ward	881-0263	5101 Knaresborough Rd.	Raleigh, NC	27615
W7	KXB	E	William L. Harris	-	(requested un-listed)	-	-
N4	KXV	T	Ray Craig	848-9190	6117 Valley Estates Dr	Raleigh, NC	27615
KB4	LAF	E	Chet Rataski	847-1122	9600 Barton Creek	Raleigh, NC	27615
KM4	LB	A	Thomas Klimala	469-5129	1545 Seabrook Ave.	Cary, NC	27511
N4	LBA	T	Richard Brown	553-5839	2020 Spring Valley Dr.	Clayton, NC	27520
WD4	LCL	T	Eric Goldberg	847-1350	7901 Audubon Dr.	Raleigh, NC	27609
KB4	LEN	T	Lyman McLean	438-7002	806 Hargrove St.	Henderson, NC	27536
KB4	LFH	A	Michael Crowder	783-6701	7311-I Lynn Cove Ln.	Raleigh, NC	27613
WA4	LHE	E	Arnold Glenn Clary	266-3115	2125 Davistown Rd.	Wendell, NC	27591
N4	LK	E	John J. Carey	-	10008 Sycamore Rd.	Durham, NC	27703
N4	LMR	A	Richard Woodbury	846-9475	6511 Paces Arbor Cir513	Raleigh, NC	27609
W6	LPQ	A	Jim Paul	847-5842	2212 Countrywood Rd.	Raleigh, NC	27615
N4	LQR	T	Paul Smith	772-0960	Box 1281	Garner, NC	27529
AB4	LR	E	Dave Williams	231-7744	4008 Live Oak Rd.	Raleigh, NC	27604
KB7	LX	A	William R. Leach	362-7427	P.O. Box 1228	Apex, NC	27502
K4	LXV	A	Larry Young	847-8558	8804 Weathersfield Ct.	Raleigh, NC	27612
WA4	LYN	E	Rick Prescott	872-3191	2008 Aurora Drive	Raleigh, NC	27615
K4	MC	E	Bob Corns	828-6005	1619 Oberlin Rd	Raleigh, NC	27608
KB4	MDY	T	Carla Gleason	467-5787	112 Barbary Ct.	Cary, NC	27511
KB4	MDZ	G	Chuk Gleason	467-5787	112 Barbary Ct.	Cary, NC	27511
KC4	MHJ	G	"Lanny" Burks	467-1597	105 Earl Drive	Cary, NC	27511
KC4	MID	T	W. Durward Turner, Jr.	438-2038	938 Hargrove St.	Henderson, NC	27536
WA4	MJF	A	Ronnie Reams	266-4434	3509 Rolesville Rd.	Wendell, NC	27591
W4	MJN	A	Morton R. Shaw	787-0916	5509 Lambshire	Raleigh, NC	27612
WD4	MRD	G	Joe Henderson	787-6624	2221 Coley Forest Pl.	Raleigh, NC	27607

N4	MWN	A	Ken Walker	872-9736	3419 New Hope Rd.	Raleigh, NC	27614
KC4	MWT	T	Brian Breton	781-2415	4101 White Pine Dr.	Raleigh, NC	27612
AA4	MY	E	Vince Yakamavich	847-8512	220 Carriage Tr.	Raleigh, NC	27614
WD4	MYM	T	Jim Crockrell	266-2949	203 Hester	Knightdale, NC	27545
WA2	MYZ	A	Edward L. Surmaitis	362-9330	7000 Orchard Knoll Dr.	Apex, NC	27502
WD4	MZZ	T	Joseph D. Ellis	848-1141	6829 Laurdane Rd	Raleigh, NC	27613
ZBB	N4	T	Ken Edwards	-	6216 Trinity Circle	Raleigh, NC	27607
WA9	NEW	A	Bruce Eggers	779-0266	1141 N. Spr. Garden	Raleigh, NC	27603
KC4	NJB	G	Lynn Pitegoff	787-1111	3632 Blue Ridge Rd.	Raleigh, NC	27607
KC4	NMR	T	Debbie B. Glosson	542-4267	Rt. 1 -- Box 950	Moncure, NC	27559
KC4	NMS	N	Sage Lestz-Mueller	851-4577	1810-101 Avent Ridge	Raleigh, NC	27606
KC4	NMT	T	Roger Woodbury	829-6470	900 Dogwood Ln.	Raleigh, NC	27607
KA4	NSA	T	Alan Plaks	876-4192	1205 Country Ridge Rd.	Raleigh, NC	27609
K4	NYV	E	Lynn Pendleton	829-9449	3617 Country Cove Ln.	Raleigh, NC	27606
KU3	O	E	George A. Perkins	460-0572	208 Dalmeny Dr.	Cary, NC	27513
KC4	OCB	T	Mark A. Thompson	266-0606	1029 Harvest Mill Ct.	Raleigh, NC	27610
N4	ODA	A	Jim Mulligan	779-1997	1403 Buckhorn Rd.	Garner, NC	27529
WA4	OGK	T	Patrick M. Berry	460-1051	307 Wyatt's Pond Ln.	Cary, NC	27513
N4	OIC	G	Ardie C. Watkins	772-7071	8516 Bells Lake Rd.	Apex, NC	27502
W8	OJW	G	Alexander Meleg Sr.	-	3817 Bellwood Dr Nw	Canton, OH	44708
KB4	OKB	A	Dave Tuttle	553-5224	S. Bend Mobile Home Pk	Clayton, NC	27520
WA4	OLH	T	Virgil Q. Sealy	469-3264	425 Ralph Dr.	Cary, NC	27511
WA4	ORE	T	Moffett H. Spencer	599-4513	211 West Barden St.	Roxboro, NC	27573
KF4	OT	A	Ray Hart	846-2648	1405 Acres Way	Raleigh, NC	27614
WA4	OTA	A	Tom Alexander	881-8262	3039 Wycliff Rd.	Raleigh, NC	27607
AB4	OZ	E	Alan J. Pitegoff	787-1111	3632 Blue Ridge Rd	Raleigh, NC	27612
N4	OZL	T	John Callery	833-3447	3621 Bond Street	Raleigh, NC	27604
WB4	OZL	E	Ron McCann	269-6076	2101 Herbert Drive	Zebulon, NC	27597
NF4	P	E	Rollin Ransom	269-4406	1421 Parks Village Rd.	Zebulon, NC	27597
KB4	PCH	T	Bill Bunting	469-1557	1018 Castalia Dr.	Cary, NC	27511
KC4	PCX	T	Fred A. Slipsager	231-0078	3500 Maitland Drive	Raleigh, NC]	27610
WA4	PEN	T	Ed Alderman	876-0340	3101 Julian Dr.	Raleigh, NC	27604
KC4	PHJ	T	Alex Macklin	467-8516	620 Country Ln.	Cary, NC	27513
KA1	PKL	T	Greg Vasquez	968-4537	B1 - The Village Apts.	Carrboro, NC	27510
K9	PM	E	Paul Mueller	851-4577	1810-101 Avent Ridge	Raleigh, NC	27606
N4	PNO	T	Chris Hux	859-3256	816 Merwin Rd.	Raleigh, NC	27606
N4	PPN	T	Douglas C. Parker	833-9682	1228 Somerset Rd.	Raleigh, NC	27610
N4	PSJ	T	Dexter Joyner	847-1359	9801 Honeycutt Rd.	Raleigh, NC	27614
K4	PSP	G	Michael Falzone	834-6581	1305 Wake Forest Rd.	Raleigh, NC	27604
N4	PTQ	T	Donn R. Harris	772-5130	Rt. 3--Box 326 Rand Rd.	Raleigh, NC	27603
WD4	PZY	T	J. Bowie Gray, Jr.	243-2397	1012 Tremont Rd.	Wilson, NC	27893
WB4	QHA	G	Robert L. O'Neal	556-0273	601 Tyler Run	Wake Forest, NC	27587
WB8	QJN	T	John L. Ohl	-	P.O. Box 121	Knightdale, NC	27545
KC4	QNQ	T	Joseph B. Watkins	772-5452	501 Locust Ln.	Raleigh, NC	27603
AB4	QT	E	Robert Brunn	469-3347	414 Oakridge Rd	Cary, NC	27511
AB4	QU	E	Bill Strickler	876-9280	3105 Crandon Ln.	Raleigh, NC	27604
KB4	QVL	N	Bill Galler	787-7756	2101 Nancy Ann Dr.	Raleigh, NC	27607

N4	QWE	T	Kathie Mulligan	779-1997	1403 Buckhorn Rd.	Garner, NC	27529
N4	RGG	A	Heyward B. Grainger	779-6847	604 Margie Helen Rd.	Raleigh, NC	27603
K4	RKI	E	Glynn Furr	467-8416	740 Landing Dr.	Cary, NC	27511
AB4	RQ	E	Ken Stroud	823-5575	Rt. 3 -- Box 9	Tarboro, NC	27886
KB4	RV	A	Kenneth J. Boggs	787-1127	4333 Pickwick Dr.	Raleigh, NC	27612
KB4	RW	A	Jack Williams	872-7329	1000 Winona Rd.	Raleigh, NC	27609
N4	RWU	T	Ed Taylor	294-3474	208 Beverly Place	Greensboro, NC	27403
N4	RWZ	G	Rahul Patel	469-3212	111 Coorsdale Dr.	Cary, NC	27511
KB4	RZ	A	Richard Jackson	787-1160	3347 Alamance Dr.	Raleigh, NC	27609
N4	RZO	G	Warren B. Bell	850-0515	7316 Massachusetts Ct.	Raleigh, NC	27615
NF4	S	E	George Barner	872-4495	7205 Stephen Boyd Ct.	Raleigh, NC	27604
K4	SAN	A	David E. Thomas	772-6338	17 Merrimac Dr	Apex, NC	27502
N4	SDQ	T	Fran E. Beckett	781-6592	4100 Duraleigh Rd.	Raleigh, NC	27612
N4	SHD	T	Patrick A. Griffin	839-5925	5016 High Grove Dr.	Raleigh, NC	27610
N4	SHX	T	John H. Fish	471-6894	1107 Wyldewood Rd.	Durham, NC	27704
WA4	SKH	A	Ben Robinson	848-7814	5717 Lakehaven Dr.	Raleigh, NC	27612
AB4	SL	E	Steve Kastelberg	362-4697	Rt. 1 -- Box 36-A	New Hill, NC	27562
K8	SL	E	Rolf Andersson	848-4033	2836 Mattlyn Ct.	Raleigh, NC	27613
KA4	SMC	T	John R. Moseby	544-5944	813 Bluestone Rd.	Durham, NC	27713
N4	SMI	T	Aaron Sims	772-8097	1804 Vandora Springs	Garner, NC	27529
WA4	SNC	G	Wayne Shevlin	847-3470	217-C E. Millbrook Rd.	Raleigh, NC	27609
N4	SNV	T	Earl A. Daughtry	564-4150	Rt. 1 -- Box 286A	Clinton, NC	28328
KJ4	SO	A	Woody Winstead	848-1844	717 Saw Mill Rd.	Raleigh, NC	27615
N4	SOU	T	Sonny Perkins	735-1862	111 S. Oleander Ave	Goldsboro, NC	27538
K3	SPC	A	Joseph J. Snyder	781-0225	Box 17265	Raleigh, NC	27619
WB2	SPX	T	Raymond A. Soloman	876-0364	1305 Hedgelawn Way	Raleigh, NC	27615
W6	SRF	G	Raymond Tissot	782-9681	4508 Embleton Dr.	Raleigh, NC	27612
WA2	SRZ	E	Vincent Manoogian	471-8792	901 Chalk Level Rd. C10	Durham, NC	27704
N4	SSN	T	Randall Mason	833-0988	1010 Rock Dr.	Raleigh, NC	27610
N4	SSO	T	Jean Robinson	848-7814	5717 Lakehaven Dr.	Raleigh, NC	27612
N4	SSS	T	Peggy Price	481-3856	420 Oak Ridge	Cary, NC	27511
N4	SST	G	Milton C. Blalock	552-9490	903 Holland Rd.	Fuquay Varina, NC	27526
N4	SSU	T	Edward V. Breeden III	787-8874	1309 Westmoreland Dr.	Raleigh, NC	27612
N4	SSX	A	Andy Blalock	477-0664	3503 Duke Homestead	Durham, NC	27704
N4	SVZ	T	Jim Wagner	544-3339	5824 Shamrock Rd.	Durham, NC	27713
N4	SW	E	Walt Short	876-1166	5515 Castlebrook Dr.	Raleigh, NC	27604
N4	SWB	T	Gilbert R. Chenery	847-7918	1213 Carrington Dr.	Raleigh, NC	27615
WA9	SZL	G	Johnnie Mayfield	365-6291	302 Poplar Box 1273	Wendell, NC	27591
AB4	T	E	Harry Avinger	362-8870	1001 Smokewood Dr.	Apex, NC	27502
NO0	T	E	Paul Sobon	847-8830	4700 Fallswood Pl.	Raleigh, NC	27612
NX9	T	E	Jeff Keller	556-0395	Rt. 1 Box 329-E1	Youngsville, NC	27596
AB4	TD	E	Jim Smith	846-0525	11017 Mason Ridge Dr.	Raleigh, NC	27614
N4	TDY	E	Charlie Fields Jr.	848-8130	6524 Keystone Drive	Raleigh, NC	27612
AA4	TE	E	Joel A. Walker	467-6749	510 Madison Ave.	Cary, NC	27513
N4	TED	G	Scott Kraus	387-0196	1002 Wellstone Circle	Apex, NC	27502
N4	TH	E	Donald S. Alderman	781-0690	5301 Applegate Ct.	Raleigh, NC	27609
N4	TKH	G	Sidney McAlister	362-6137	2620 Sweetgum Drive	Apex, NC	27502

WB9	TLY	T	Sue Doligalski	481-1236	132 Castlewood Dr.	Cary, NC	27511
WA3	TMR	E	Steve Lympany	847-9456	7821 Breckon Way	Raleigh, NC	27615
WB4	TNC	A	Charles O. Mays	781-0553	5400 Belsay Dr.	Raleigh, NC	27612
N4	TQO	E	Stephen F. Merchant	556-8889	3329 Donner Trail	Wake Forest, NC	27587
KA4	TSM	A	Robert Brenner	556-6789	Rt.1 - Box 331-G	Youngsville, NC	27596
WB7	TXO	G	Joyce E. Yakamavich	847-8512	220 Carriage Tr.	Raleigh, NC	27614
W4	TZU	A	Sherman Starnes	494-5169	Rt. 1 Box 99	Franklinton, NC	27525
N4	UAQ	T	Doctor Aal-Anubia	828-9922	2617 Ramsey Road	Raleigh, NC	27604
W2	ULO	E	John F. Vargas	850-9200	6009 River Landings Dr	Raleigh, NC	27604
N6	UMI	G	Frederick J. Bailey	471-9561	1702 Kirkwood Dr.	Durham, NC	27705
N4	UNY	T	Ann McKenzie	828-2888	461 Rose Ln.	Raleigh, NC	27610
KM4	UO	A	William R. Hutchins	471-8714	5605 Brisbane Drive	Chapel Hill, NC	27514
N4	UOC	A	Ernest M. Schnitz	942-4575	526 Colony Woods Dr.	Chapel Hill, NC	27514
N4	UOD	G	Bruce Chase	781-0582	5408 Emerson Dr.	Raleigh, NC	27609
N4	UOE	T	Pete Memolo	365-3751	6276 Stag Trail	Wendell, NC	27591
N4	UOF	T	Al Johnson	469-1758	1247 Kimbolton Drive	Cary, NC	27511
N4	UOQ	T	Noble Phelps-Breeden	787-8874	1309 Westmoreland Dr.	Raleigh, NC	27612
KI4	UP	A	Gerald M. Hay	846-8073	11924 Appaloosa Run	Raleigh, NC	27612
N4	UST	T	Randy Smith	839-0776	710 - A McCulloch St.	Raleigh, NC	27603
WB4	USX	G	Sue Meyer Parks	544-7952	3 Custer Circle	Durham, NC	27713
KM4	UT	E	Michael Payne	772-8726	5813 Heathill Ct.	Raleigh, NC	27603
N4	UTT	G	Jan Avinger	362-8870	1001 Smokewood Dr.	Apex, NC	27502
WA0	UWS	E	Greg Rogers	-	1929 Bud Smith Rd.	Wake Forest, NC	27587
N4	VED	E	Oscar David Biddy Jr.	832-2374	542 Granite St.	Raleigh, NC	27603
N4	VEE	A	Frank Bridges	552-4135	9820 Lake Wheeler Rd.	Fuquay Varina, NC	27526
N4	VHU	T	Jeff Brown	596-8951	PO Box 11742	Durham, NC	27703
KC9	VJ	A	James E. Shelby	787-7146	123 Crestview Rd.	Raleigh, NC	27609
AA4	VK	E	Ron Oates	847-3279	9908 Waterview Rd.	Raleigh, NC	27609
K4	VLR	A	Charles E. Brown	-	PO Box 2235	Morehead City, NC	28557
N4	VQK	T	Kenneth Barnhouse	821-1673	517 Gardner St.	Raleigh, NC	27607
N4	VQL	A	"Chuck" Payne	790-1068	4807-A Hollenden Drive	Raleigh, NC	27604
N4	VQN	T	Bob Rinn	847-6185	509 Brittany Bay	Raleigh, NC	27614
N4	VQO	T	Kenneth White	552-1861	PO Box 1141	Apex, NC	27502
N4	VQT	G	Rick Yost	848-7887	7204 St. Ledger Drive	Raleigh, NC	27613
N4	VQV	T	Lisa Walker	467-6749	510 Madison Ave	Cary, NC	27513
WA3	VRU	T	Richard Sudkamp	362-9682	6901 Orchard Knoll Dr.	Apex, NC	27502
WA4	VSL	A	Glenn C. Lampley	846-8210	2645 Ridgewell Ct	Raleigh, NC	27613
N4	VUH	T	Virgil Hinds	876-7613	3316 Comstock Rd.	Raleigh, NC	27604
N4	VUI	G	Chris Gaither	772-8525	5501 Meadowbrook Rd.	Raleigh, NC	27603
K4	VWN	G	Barry D. Barr	781-0563	3620 Rock Creek Drive	Raleigh, NC	27609
KB4	VYP	T	Patrick Reams	266-4434	3509 Rolesville Rd.	Wendell, NC	27591
KI4	VZ	A	John W. Peterson	839-8883	2813 Henslowe Drive	Raleigh, NC	27603
N4	VZQ	G	Guy E. Hill	772-4327	408 Lamesa Drive	Raleigh, NC	27603
KY4	W	E	Frank Weiss	-	17401 Spring Tree	Boca Raton, FL	33431
KA2	WFM	G	Emily Will	556-7414	Box 58552	Raleigh, NC	27658
N4	WFO	T	Craig W. Schulz	266-1560	1012 Laurens Way	Knightdale, NC	27545
N4	WKK	E	Philip L. Martin	781-5666	608 Macon Place	Raleigh, NC	27609

N4	WPX	T	Janet Payne	772-8726	5813 Heathill Ct.	Raleigh, NC	27603
N4	WPZ	T	Charles Cheek	460-7314	1032-D Collier Place	Cary, NC	27613
KC2	WR	A	Dave C. Zimmerman	967-5387	804 Curchill Drive	Chapel Hill, NC	27514
N4	WRR	G	Martin Gaither	291-2940	3406 - #3 Jayne Ln.	Wilson, NC	27893
WA1	WXL	T	Jeff Parker	848-1208	11107 Coachman's Way	Raleigh, NC	27614
W4	WYV	E	George S. Peacock	876-0071	6604 Johnsdale Rd.	Raleigh, NC	27615
N4	XJL	A	George H. Wilson	237-1659	305 Monticello Dr.	Wilson, NC	27893
N4	XOS	T	John Owen	362-9041	9041 Holly Springs Rd.	Apex, NC	27502
N4	XOU	T	Steve Bunn	553-6854	305 Deerfield Dr.	Clayton, NC	27520
N4	XOV	T	William A. Hobbs	893-3583	P.O. Box 220	Lillington, NC	27546
N4	XOW	T	William B. Davison	460-8709	102 Collier Pl. Apt. 1-A	Cary, NC	27513
N4	XOY	T	Denise A. Sealy	469-3264	425 Ralph Dr.	Cary, NC	27511
N4	XPB	A	Carl Gerdes	847-2854	1644 Brookrun Drive	Raleigh, NC	27614
N4	XPC	T	James C. Hobbs	781-2091	1104 Currituck Drive	Raleigh, NC	27609
N4	XPD	T	Wayne Glosson	542-4267	Rt. 1 -- Box 950	Moncure, NC	27559
N4	XPE	G	Dave Hyte	596-9398	5109 Shagbark Drive	Durham, NC	27703
N4	XPF	T	Ronald Young	870-0175	7445 Deer Track Drive	Raleigh, NC	27613
AA4	XX	E	Paul T. Stroud	779-1637	1318 Alderman Circle	Raleigh, NC	27603
N4	XXF	T	Ron Olson	847-8926	1609 Falls Court	Raleigh, NC	27615
N4	XXG	G	Michael W. Malpass	851-5390	202 Larkwood Ln.	Cary, NC	27511
N4	XZI	T	Phil Nguyen	781-6003	4640 Tournament Dr.104	Raleigh, NC	27612
WB4	YBF	E	Paul R. Sims	772-8097	1804 Vandora Spr. Rd.	Garner, NC	27529
W4	YC	E	Ed Engebretson	847-1030	1308 Hunting Ridge Rd.	Raleigh, NC	27615
N4	YFU	T	John A. Garrett	596-5800	501 Stoney Creek Circle	Durham, NC	27703
N4	YKC	T	David J. Fisher	847-6033	11908 Coachman's Way	Raleigh, NC	27614
N4	YLP	T	Frederick New	497-6589	112 Deerfield Dr.	Springlake, NC	28390
KK4	YM	A	David E. Meleg	787-7456	5420 Old Towne Rd.	Raleigh, NC	27612
WA4	YOM	A	Jim Peeler	787-6036	3513 Leonard St.	Raleigh, NC	27607
KK4	YP	A	Kirk Ellis	965-9577	Rt 1 - Box 18 Foxfire	Selma, NC	27576
N4	YQW	T	Mary W. Beam	362-6113	1304 Chapel Ridge Rd.	Apex, NC	27502
N4	YQX	T	Thomas L. Beam	362-6113	1304 Chapel Ridge Rd.	Apex, NC	27502
N4	YQY	T	Tom Byrd, Jr.	821-9293	701 Mills Street	Raleigh, NC	27608
N4	YQZ	T	Stan Goldsmith	848-4877	12312 Chastain Dr.	Raleigh, NC	27614
N4	YRA	T	Michael Hamlett	471-8714	Rt. 1 -- Box 825	Hillsborough, NC	27278
N4	YRB	T	John S. Irwin	872-3113	3225 Julian Dr.	Raleigh, NC	27604
N4	YRC	T	Jeffery Johnson	469-1758	1247 Kimbolton Dr.	Cary, NC	27511
N4	YRD	T	John C. Jaskolka	876-8475	2130-D Brentwood Rd.	Raleigh, NC	27604
N4	YRF	T	Robert Mays	929-1073	5622 Brisbane Drive	Chapel Hill, NC	27514
N4	YRG	T	Zephyr Mays	929-1073	5622 Brisbane Drive	Chapel Hill, NC	27514
N4	YRH	T	Robin J. McMurray	266-6535	Rt 1 Lot 11 Valley Wood	Knightdale, NC	27545
N4	YRI	T	Teresa A. Smith	846-0525	11017 Mason Ridge Dr.	Raleigh, NC	27614
N4	YRJ	T	Peter St. Wecker	383-7847	17 Prestwick Place	Durham, NC	27705
N4	YRK	T	Jean Tawes	775-1374	3113 Wild Forest Rd.	Sanford, NC	27330
N4	YRL	T	Edward Tawes, Sr.	775-1374	3113 Wild Forest Road	Sanford, NC	27330
N4	YRM	T	Chris Triantaphyllou	851-4571	106 Merwin Road	Raleigh, NC	27606
N4	YRN	T	Stephen L. Williams	387-0831	3204 Treewood Lane	Apex, NC	27502
WB9	YZI	A	Peter Kraehenbuehl	846-4082	6800 Woodmere Dr.	Raleigh, NC	27612

NU9	Z	E	Scott W. Schulz	266-1560	1012 Laurens Way	Knightdale, NC	27545
K4	ZAD	A	Tom McKee	851-2542	104 Water Leaf Ln	Cary, NC	27511
N4	ZCM	T	Bill Glaub	821-1322	317 Quail Dr.	Raleigh, NC	27604
N4	ZDC	T	Thomas Gladden	552-0514	Route 1 Box 51	Fuquay Varina, NC	27526
KM4	ZF	E	Edward Griest	847-0186	6901 Buckhead Dr.	Raleigh, NC	27615
KA4	ZHG	N	Wade Stone	851-5257	1315 Chaney Rd.	Raleigh, NC	27606
KB4	ZMB	T	"W.G." Davis	269-4172	PO Box 443	Wendell, NC	27591
WB5	ZPQ	A	Joe Saah	779-5659	114 Village Ct.	Garner, NC	27529
WB4	ZSM	G	Audrey Browne	787-4299	4419 Gates St.	Raleigh, NC	27609
K4	ZVK	G	Walt Chambers	876-6306	4301 James Road	Raleigh, NC	27604
KA4	ZZO	T	Corbett Blackman	876-1798	5705 Dean Ave.	Raleigh, NC	27604

For Emergencies in Raleigh: 911 Wake Co. Sheriff: 856-6900 NC Highway Patrol: 733-3861

RARS EXCITER Wins Superior Award in Newsletter Contest

The results from the 1989 Amateur Radio News Service contest are in. The EXCITER was judged "Superior" (their highest rating) for clubs of similar size.

How'd we do? We were judged by 3 independent judges, and our over-all rating was 94%. We lost points for: (a) [lack of] humor, puzzles, entertainment; (b) [lack of] editorials; (c) [lack of] pictures, cartoons and graphics; and (d) [quantity of] member contributions. We didn't loose many points for these shortcomings, but in all of the other judging areas, we were judged perfect.

In defense, I'd like to point out that we were judged on only one issue, not a year's worth. So the judges may have missed the occasional cutting Editorial, the word search puzzles, or some of our humor (remember Sparkie?, or "for ID?")

How to improve?? I've added a hand-scanner & an additional 40 MEG of hard drive capability to the computer. Hopefully that will help get more photos,

graphics & cartoons onto our pages, but not without help. If you see something that you feel we all would get a chuckle out of, please send it to the Editor!

As for Editorials -- well, the EXCITER is **YOUR** paper, not mine. I'd prefer exposing the issues that bug YOU, not me. The only way to **improve** our club is to identify, discuss and correct what we feel is **wrong** with it! I'm always looking for "Members Speak Out" type articles.

As far as improving the number of member contributions, well, thats entirely up to you!

73, AA4MY

FOR LENDING / GIVING:

A G.E. Voice Commander 2 Meter Transceiver running a couple of watts on the 688 repeater channel. Battery operated, with AC power supply. Plus enough coax to get to an outside or attic antenna. Plus an antenna.

75 and 90 ohm coax in 25 foot lengths with connectors. Lots of coax on hand.

The above two items are targetted to NOT-ON-THE-AIR-YET licensees (recent or not-so-recent) who have had sticker price shock difficulties.

Contact Bruce Chase N4UOD 781-0582

MAKING ANTENNAS PLAY

by Steve Modena AB4EL

This installment continues the theme of single feed point, multidipole antennas and picks up where my April article ended.

The 10-12-15-17-20 meter antenna described in April had a spider form. Though some people's attics can accommodate a spreading antenna, a more compact profile would be generally useful.

The feed point insulator was screwed to the center of the summit beam of the roof. I made four frets, as shown in Figure 1, from scrap wood. The frets served to guide and hold apart the five radiating dipoles of the antenna, see Figures 2A and 2B. I chose a 2-inch spacing of the antenna wires to simulate a spacing that might be typical of an out-of-doors multidipole. Other spacings would be OK. Each wire is tensioned by a nylon cord drawn out to a nail on the rafters. This is the SAME antenna as in April, except for the arrangement of the wires.

Using my trusty noise bridge, I adjusted each of the five dipoles to "resonance" in the manner described in the April article. Table 1 gives a comparison of the "parallel" form antenna to the "spider" form antenna. As expected, the wire lengths changed, but the main features were similar. The lowest frequency dipole (20 m band) is somewhat shorter (0.93) than the standard dipole, but not as short in the parallel form antenna as in the spider form (0.86). The difference is over 10%! All of the higher frequency band dipoles are at least as long as a standard dipole, but each parallel dipole is about 5% shorter than the corresponding spider dipole. Again the lowest frequency dipole in both cases has a resonance resistance similar to a standard dipole, but all other dipoles are higher, some quite a bit higher. I found at least one "phantom" resonance at 20.24 Mhz with an impedance of >250 ohms.

Here are a few thoughts to justify tuning these antennas to "resonance." The resonant frequency is the frequency at which the impedance measured at the feed point is purely resistive.

Imagine constructing either the parallel form or spider form of a multidipole using the standard antenna length formula. This results in feedpoint impedances that are complex, having large reactance components on every band. This translates into a high SWR on the transmission line. Many transmatches are based on the design in Figure 3. If the inductance in the leg of the T-network is CONTINUOUSLY variable, it is likely that a high SWR can be transformed to a low SWR, as required by solid state transmitters. Many inexpensive transmatches have a TAPPED inductor with the inductance of being varied IN STEPS by a rotary switch. If the particular complex impedance to be transformed requires a CRITICAL value of inductance, the tap placements may not be suitable for achieving a SWR low enough for the transmitter to handle without shutdown. If less-than-optimum tap setting is true for each band, the antenna will appear to have "high SWR" on every band.

In fact, there is nothing wrong with the antenna, which is contrary to intuitive perceptions. The problem is the MECHANICAL design of the transmatch. A tapped inductor is a cost-saving alternative to a roller inductor. The "high SWR" may be the result of expecting the transmatch to do a job it is not designed for: impedance transformations requiring critical values of inductance.

What are the solutions? Unsolder the taps and move them to suit that antenna. Or buy a roller inductor-type transmatch (\$300). Or do some preliminary impedance transformation with a transmission line Q section. Or tune the dipoles to target resonances. In both the spider and parallel form multidipole antennas, the highest SWR will be about 5:1, given a 50 ohm coax transmission line. AND the antenna feed point impedances will be resistive or resistive-plus-relatively small reactances. On average, a tapped inductor-type transmatch will be able to give an acceptable SWR transformation!

I prefer to make the effort to tune an antenna to "resonance," because it is a robust approach. I own a taped inductor-type transmatch.

New Calls Heard

Tom Gladden, now N4ZDC
Bill Glaub, ex KC4PCK, now N4ZCM

Table 1

Parallel Form				Spider Form			
Freq. MHz.	Length	ohms	XrLen. Ratio	Freq. Mhz.	Length	Xr ohms	Len. Ratio
14.150	30.58 ft	70	0.93	14.047	28.71 ft	50	0.86
17.961	25.92 ft	125	1.00	18.153	26.83 ft	200	1.04
20.953	23.42 ft	145	1.05	21.295	24.21 ft	165	1.10
24.854	19.54 ft	200	1.04	24.990	20.67 ft	110	1.11
28.555	17.08 ft	220	1.04	28.600	18.79 ft	185	1.15

Personality Test

continued from page 5

Personality Profiles:

A. You are fat, middle-aged, and smoke cigars. A real DX fiend, you own stacked monobanders at 150 feet. King Hussein and Father Moran know you on a first name basis. When you key the mic, the power company declares a peak power emergency.

B. Your idea of state of the art equipment is an HW-101. You own a NCX-3 or a Hallicrafters of some sort. You and your cronies make an 8 KHz wide dent on the upper end of 75. Your only knowledge of the word "splat-ter" is what bugs do on your windshield. On SSB, you use a chrome plated D-104 lollipop mic. For your annual CW QSO, you use a bug set to send dots at 65 wpm, and dashes at 5 wpm. When people can't sleep, they tune to 40 & listen to you rattle about the "good old AM days."

C. You are basically nosy, and get secret thrills out of reading the traffic that you pass. Your obsession with line noise borders on paranoia. You fantasize about using thermo-nuclear devices to eliminate all your neighbors' household appliances, and strangling the 75 meter roundtable geezers with hardline.

D. You wear plaid shorts, black socks, and loafers to hamfests. Your call tag has little blinking LEDs on it. Children in your neighborhood get spending money by shoveling out aluminum beer cans at your place that stack up on contest weekends.

E. You think that two meters is for peasants. Your house looks like Mission Control in Houston. Truth is, you have gear for every band above 440, but no one to talk to.

People with pacemakers should not tour your shack.

F. Disaster is a turn-on for you. You love to jump in your car and follow fire-engines and ambulances. You took every kind of first aid class the Red Cross offers in hopes of becoming a hero. You hover over the local repeater like the Angel of Death.

G. Your shack looks like the cockpit of the Space Shuttle. For X piecés of radio equipment, you have (2*X) pieces of accessory gear, and (5*X) sets of interface cables. It takes you 30 minutes to change modes. In an ordinary garden variety ragchew, you are a total conversational geek.

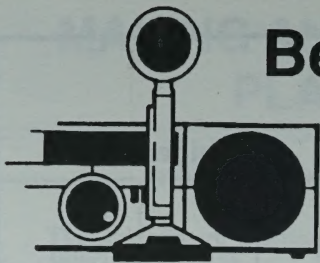
H. Your parents hope that Amateur Radio is just a phase you'll grow out of. You lose points with dates by leaving the meter rig on at the drive in movie. You tell your friends that you'll be on MARS this afternoon, and they ask you if you can get them some of whatever you're on.

I. You regularly call CQ on top of BY1s. You call home on the autopatch and your spouse divulges your darkest secrets on the repeater. You have an impressive collection of "borrowed" QSTs. Last week, your neighbors hired a Gypsy to curse your tower.

J. Strange old men call you "honey" on the air. Everybody wants your QSL for WAS-YL. At hamfests, XYLs fume when you buy tickets for both the afghan and the TS-940. While discussing erotic subjects like the Russian Woodpecker, these same XYLs drag their husbands away from you. Sometimes you wonder if these gals are going to get together and buy you a call sign hat with a scarlet A on it.

As you probably have now discovered, NO body won this one!

*Maria L. Evans, KT5Y, via
Laurel (MD) ARC "Feedback",
K3LDE, Editor*



Bert's Beat

**"Bert" Bailey,
W4FMN**

Back to Work With RARS

After a quarter of teaching at night at Wake Tech, with acting as NCS for the RARS nets on Wednesday nites when lab did not QRM the act, I still was not able to attend the RARS meetings. So this last one, in June, I got back on track and did indeed return to RARS. Handling VE duties, I got back in the saddle real quick. It still amazes me to see applicants fail one part of the exam, go ahead and take the rest of it on the same nite or qualify for several classes of license at the same sitting. Its great ... but not what I'm used to. So it gets back to Dad and the kids, the 40s and the 90s, the QCWA and the novices. Got to hand it to the VE team; ole Vince has organized quite an efficient group.

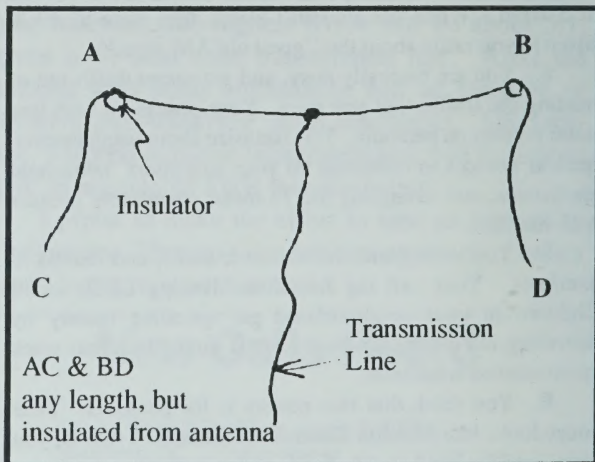
What About Stringing Up Those Dipoles???

Nothing to it you say? Well, I have my doubts. Not everybody knows how to get the ends of those dipoles up over the trees or clear other obstacles. If Elmer is not about, or if he's never seen it done, a novice just may be in a quandary as he holds the ends of his newly constructed dipole and gazes at the limbs of those high trees he would like to anchor the ends to. Shall we give him the slingshot solution? Or, how about the bow and arrow bit? And there are yet other methods. One is to tie the trail lock pin of the venerable 105mm howitzer (or any other suitable **heavy** mass) to the end of the antenna and heave the combination over the limb to which you want to anchor. The weight of the pin allows the end to punch thru the foliage and descend to the ground. If you used the pin from a 75mm pack howitzer though, it might not be heavy enough to fall thru the branches of the tree --

and this would add to your antenna woes. Well tied hammers, rocks in bags, and transformers are other types of suitable masses. (If using a transformer, make sure it's the **step-up** variety, 'cause everybody knows it's neigh impossible to heave a **step-down** high into the air!).

Now, when you master this most elementary technique, you can step up to the bow and arrow approach and parallel the steps. So much for getting the antenna up yonder. Now we must review how to prepare the ends of the antenna for their journey thru space. Study the sketch below and observe criticality of the component parts. The carefully calculated length must be preserved. That is, the dimension A - B. The extensions can thus be of any length. But such dimensions must be long enough so that when you have recovered the weight you tossed in the trees, the other end of the line lies in or on the tree and not the antenna itself. Remember A-B must be clear of any ground. To go first class, you can run this line thru a pulley so the antenna can be kept taut or you can simply tie the rope to a nail in the tree or around the tree itself. [Ed. Comment: Perhaps next issue Bert can tell us how you can easily anchor the pulley **high** in the tree!]

Now, with your dipole solidly in position, all you have to do is scurry back into the shack and chase DX. Check the work every once in a while. Don't wait for the SWR to increase to infinity before you check your antenna. Remember the old saying, "An ounce of prevention is worth a pound of cure", or, put more aptly to us radio types, "An eyeball out the window is worth a 1:1 SWR".



RARS MEMBERSHIP RENEWAL QUESTIONNAIRE

Name _____ Call _____ ARRL Member? Y/N _____

Home Phone: _____ Work Phone: _____

SIG Survey Question: Do you use / would you use any (additional) RARS sponsored repeaters?
Circle all that apply: NO 2 METER 6 METER 10 METER 220 MHz 450 MHz

Important: Cast Your Vote!!

The following has been proposed to the RARS Advisory Board:

"Purchase a multi-featured, state of the art repeater controller. This controller would make available special features such as speed dialing, linking, and other DTMF controlled features in addition to the basic functions (including auto-patch) that we now enjoy. To support the additional cost of the new features that this controller would provide, assess a fee for the use of those features." That was the proposal.

Based on that proposal, the Advisory Board agreed to provide for the purchase of the new controller **ONLY** if a sufficient portion of the general membership (approx. 170 members) agree to underwrite the cost of the additional features. So, now we put the question to YOU!

Do you want RARS to have a state of the art, "top of the line" controller for our 2 meter repeater?

To vote YES, and to reserve an auto-dial number for yourself, send an additional \$7.00 check to our treasurer when renewing your membership.

Votes will be tallied next month, so please be prompt with your reply. (In the event this proposal fails, the \$7 checks will be destroyed.

RARS Dues: \$10.00 individual / \$15.00 family / \$7.00 additional to vote YES for enhanced repeater functions, and reserve for yourself an auto-dial number.

Mail to: RARS Treasurer, Tim Buehlmann, N4IQA, 1314 Chaney Rd., Raleigh, NC, 27606

For Sale:

12" Samsung amber monitor with Hercules compatible card for IBM PC and clones. Like new \$ 95.

Harry K8AC, @ 851-7546.

IBM (not clone) XT Computer, with NEC V20 chip (runs as fast as an AT). With 640K RAM, 1-360K half-height floppy drive, 1-20 MEG Seagate hard drive, amber monitor, and some software. Asking \$850

Sonny Kellum, WA4JWE, @ 846-7455

MFJ Versa Tuner II Model MFJ-949D. 4:1 balun/ANT selector, 50 ohm dummy load, 300 watts 10 thru 160 meters, cross-needle meter for forward/reflected power and SWR. Original box and instructions. Like new.
\$119.00

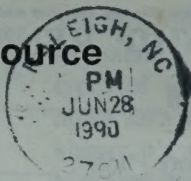
Ernest Schnitz, N4UOC @ 942-4575 (Chapel Hill)

Amateur Radio -- A National Resource

Raleigh Amateur Radio Society, Inc.

P.O. Box 17124

Raleigh, NC 27619



MR. CHARLES R. LITTLEWOOD
2005 QUAIL RIDGE ROAD
RALEIGH

K4HF

NC

27609

Next Regular RARS Meeting: Wednesday, July 4, 7:30 PM

Raleigh YMCA, 1601 Hillsborough St.

RARS Nets: Daily @ 8:00 PM on 146.04/64

10 Meter - Tuesdays, 7:00 PM on 28.364 MHz

YL Info Net - Wednesdays, 9:00 PM, 04/64

Technical Information Net - Saturdays, 8:30 PM, 04/64

Code Practice - Mondays & Fridays 9:00 PM, 04/64

RARS Computer Bulletin Board: 781-2530

Events Calendar

- | | |
|--------|--|
| Jul 04 | Regular RARS Meeting - 7:30 PM - YMCA |
| Jul 11 | Homebrew SIG Meeting - 7:30 PM - AB4OZ's QTH; Info - 787-1111 |
| Jul 12 | VHF/UHF SIG meeting - 7:30 PM - WA4MJF's QTH - Info: 266-4434 |
| Jul 14 | Exams - Durham - Call Pete Goolsby, KY4Y @ 544-3215 |
| Jul 17 | RARS SUMMER NOVICE CLASS starts.
6 Weeks; Tues & Thurs, 7:00 PM - 9:30 PM, Athens Drive High School.
Info: Bob Rinn, N4VQN, 847-6185 |
| Jul 18 | RARS Advisory Board Meeting - YMCA - 7:00 PM All Members Welcome |
| Jul 21 | Hamfest - Cary!! (9:00 AM - 3:00 PM; VFW Bldg., Reedy Creek Rd.)
Talk In 147.15. |
| Jul 24 | VHF SIG -- YMCA -- 7:30 PM -- Info: Alan, AB4OZ 787-1111 |
| Aug 01 | Regular RARS Meeting w/ Exams (walk-ins OK) |